

**VOLUNTARY ALUMINUM INDUSTRIAL PARTNERSHIP
AGREEMENT ON TETRAFLUOROMETHANE AND
HEXAFLUOROETHANE EMISSION REDUCTIONS**

I. PREAMBLE –

- A. This is a voluntary Agreement between the Partner and the United States Environmental Protection Agency (EPA) by which the Partner joins EPA's Voluntary Aluminum Industrial Partnership (VAIP).
- B. The Climate Change Action Plan of October 1993 targets a reduction in CF₄ and C₂F₆ emissions by the aluminum industry of 30% to 60% by the year 2000 through technically feasible and cost effective management and technological upgrades.
- C. The Partner and EPA acknowledge that the Climate Change Action Plan defines the base year for the program as 1990.
- D. Tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆) are global warming gases.
- E. As used in this agreement, "PFCs" means CF₄ and C₂F₆.

II. COMMON AGREEMENTS AND PRINCIPLES

- A. The Partner and EPA acknowledge that only technically feasible and cost effective efforts to reduce or maintain emissions of PFCs are sought.
- B. The Partner and EPA acknowledge that generation of PFCs is linked to anode effect frequency and duration in aluminum reduction cells, but that the process parameters and cell design parameters that influence the rate of generation of these gases are not fully understood.
- C. The Partner and EPA acknowledge that: agreed upon measurement methods for CF₄ and C₂F₆; a more in depth knowledge of the relationships between CF₄ and C₂F₆ generation and process and design variables; and the

development of emission factors for these gases are critical to the overall success of the partnership.

D. The Partner and EPA will:

- Recognize PFCs emission reductions made by the Partner prior to 1990 where appropriate, and, in developing the Partner Program, may build on these pre-1990 reductions.
- Develop a specific program for each Partner that will be flexible and take into account the facility's unique characteristics.
- Fully consider the cost-effective technical and operational options available to the Partner.

E. The Partner and EPA acknowledge that while there should be no expectations of zero emissions of PFCs from aluminum smelting operations, there is some minimum level of emissions that reflect the best facility-specific control possible.

F. The Partner and EPA agree to the following general principals.

- Each party to this agreement agrees to assume the good faith of the other party as a general principle for the VAIP.
- The Partner will provide the rationale and data as available for the establishment of the baseline emission levels.
- Either party can terminate this agreement for any reason by written notice. Termination of the agreement shall not result in penalties for EPA or the Partner.
- Section V. of this agreement, which details the Partner Program, may be revised upon mutual agreement to reflect the impact of new data on the detailed commitment of the Partner.
- The plans of the Partner in implementing this agreement are confidential and should not be used as a basis for negotiating with other parties.

III. EPA RESPONSIBILITIES

- A. EPA agrees to work to improve the available information and understanding of the factors that influence the generation of PFCs by developing and providing information to the Partner.
- B. EPA agrees to encourage other aluminum producing countries to include PFCs emissions in their respective Climate Change Action Plans.
- C. EPA will coordinate with the Department of Energy with respect to reporting under this Program and Section 1605(b)(1) of the Energy Policy Act of 1992.
- D. EPA will hold confidential any information designated as confidential business information by the Partner in accordance with applicable regulations at 40 CFR Part 2.
- E. EPA will provide a single liaison contact for the program. Proper notification will be provided in writing.
- F. EPA agrees to provide recognition to companies participating in the VAIP Program, and to provide clear information to the public, including other federal agencies and Congress, regarding reductions made by the Partner under this Program.
- G. EPA agrees that the Partner's participation in the VAIP shall not limit the Partner's ability to participate fully in any future PFCs reduction programs.
- H. EPA agrees to recognize under the VAIP reductions in PFCs emissions made by the Partner from 1990 to the date the Partner signs the agreement.
- I. EPA agrees to obtain prior permission from the Partner before the first time EPA publicly uses the Partner's name in conjunction with the VAIP, or releases information about the Partner's PFCs emissions. EPA agrees to notify the Partner sufficiently in advance of EPA's intention to publicly use the Partner's name or release emissions information.

IV. PARTNER'S RESPONSIBILITIES

- A. The Partner will provide the appropriate data for the PFCs portion of the "Tracking System."

- B. The Partner will provide, on the basis of the best available information, annual emission inventories for PFCs beginning with the baseline year.
- C. The Partner agrees to share emission data collected for PFCs and the corresponding relevant, non-proprietary process and cell design parameter information with EPA and other partners consistent with Section III.D.
- D. The Partner will provide a single liaison contact for the Program. Proper notification will be provided in writing.
- E. The Partner agrees that participation in the VAIP Program, use of the VAIP logo, or any publicity relating to its participation in the VAIP Program does not constitute EPA's endorsement of Partner for anything other than its participation in the VAIP Program and its commitment under Section V of this agreement. The Partner agrees that it will not imply otherwise.

V. PARTNER PROGRAM

Partner's program should address and specific term or combination of the following items:

- PFCs emissions
- Anode effect frequency
- Anode effect duration
- An established relationship between anode effect behavior and PFCs emissions.

As representatives of EPA [Partner], we, the undersigned, do hereby execute this Memorandum of Understanding on the latter of the dates indicated below.